

Title (en)

METHOD FOR MEASURING OF THICKNESSES OF MATERIALS USING AN ULTRASOUND TECHNIQUE

Title (de)

VERFAHREN ZUR MESSUNG DER DICKE VON MATERIALIEN MITHILFE EINES ULTRASCHALLVERFAHRENS

Title (fr)

PROCÉDÉ DE MESURE DE L'ÉPAISSEUR DE MATÉRIAUX AU MOYEN D'UNE TECHNIQUE À ULTRASON

Publication

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Application

**EP 08856633 A 20081202**

Priority

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- US 99908407 A 20071203

Abstract (en)

[origin: US2009143681A1] The invention relates to a method for measuring thicknesses of materials of multilayered structure. This method includes transmitting one or more ultrasound signals including different frequencies into a multilayered structure consisting of two or more materials with one or more ultrasound transducers, measuring materials, acoustic properties for which are different at the frequencies in use, measuring ultrasound signals reflected from the front surface and back surface of the multilayered structure with one or more ultrasound transducer and determining thicknesses of the materials within multilayered structure from the reflected ultrasound signals.

IPC 8 full level

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Citation (search report)

- [XD] US 5941825 A 19990824 - LANG PHILIPP [US], et al
- [X] US 6468215 B1 20021022 - SARVAZYAN ARMEN P [US], et al
- [X] US 7112173 B1 20060926 - KANTOROVICH EDWARD [IL], et al
- [X] US 4913157 A 19900403 - PRATT JR GEORGE W [US], et al
- [A] US 4361154 A 19821130 - PRATT JR GEORGE W
- [AD] US 4512195 A 19850423 - MIWA HIROHIDE [JP], et al

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